

## REMARKS

Reconsideration of the rejections set forth in the Office Action dated June 22, 2000 is respectfully requested. Claims 1 have been rejected. Claim 27 has been added. As such, claims 1-27 are currently pending.

Claims 1, 6, 16, 23, and 25 have been amended for clarity. New claim 27 requires that a mapping mechanism is not specific to an application while a data handler mechanism is substantially specific to the application. Support for this new claim may be found in the Specification, as for example on page 11, at lines 2-7).

### Rejections under 35 U.S.C. § 112

Claims 1 and 23 have been rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the Specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, has possession of the claimed invention. The Examiner has stated that he has found disclosure of applications being independent from command objects (Specification, page 7, at lines 21-28), which he further states is also supported in Skeen (column 18, lines 20-27). In his rejection, the Examiner has stated that he cannot find any disclosure of “the mapping mechanism being independent from the data handler mechanism” anywhere in the Specification.

The Applicants respectfully submit that contrary to the Examiner’s assertions, there is support in the Specification for a mapping mechanism being independent from a data handler mechanism. For example, on page 11 of the Specification, a command map is described as being used by more than one application. The Specification further describes that instances of a data handler class and a data content handler class are application-instance specific. It is submitted that a command map which is used by more than one application and an instance of a data handler that is application-instance specific are independent, as the command map is not application-dependent, while the instance of a data handler class is application-dependent.

Claims 9, 16, and 24- 26 have also been rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the Specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, has possession of the claimed invention. The Examiner has argued that there is no disclosure in the Specification of “the mapping mechanism is not integral to the application” or “the mapping mechanism being separately maintained from the interface.”

With regards to claims 9, 16, and 24-26, the Applicants submit that there is support in the Specification for a mapping mechanism that is not integral to an application and a mapping mechanism being separately maintained from an interface. On page 11 of the Specification, there is a description of a command map which is not application-specific. As such, a command map is not specific to a particular application and, in addition, is not an integral part of, *e.g.*, is independent of, an application. Further, on page 11 of the Specification and in Figure 1 of the instant application, a command map is shown and described as being independent of a data handler. For example, as discussed above, a command map is described as not being application specific, while a data handler is described as being application specific. Hence, it is respectfully submitted that the command map is separately maintained from the data handler, at least because the data handler is application-specific, *e.g.*, maintained with the application, while the command mechanism is not application specific, *e.g.*, not maintained with the application.

Claims 1 and 23 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. The Examiner has argued that the term “independent” has numerous meanings and is not supported to a defined meaning by the Specification. While the Applicants disagree with the Examiner’s assessment, claims 1 and 23 have been amended purely to expedite the prosecution of the instant application. Specifically, claims 1 and 23 have been amended in an effort to overcome the Examiner’s rejections.

Similarly, claims 9, 16, and 25 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. The Examiner has argued that it is unclear as to what the Applicants’ definition is of “not integral.” In an effort to address and to overcome the Examiner’s rejections, claims 9, 16, and 25 have been amended. The Applicants note that they are not in agreement to the Examiner’s rejections of claims 9, 16, and 25 as being indefinite, but have amended claims 9, 16, and 25 to expedite the prosecution of the instant application.

Rejections under 35 U.S.C. § 103

The Examiner has rejected claims 1-23 under 35 U.S.C. § 103(a) as being unpatentable over “The Java Language Environment” by Gosling et al. in view of U.S. Patent No. 5,187,787 issued to Skeen et al.

Independent claim 1 recites a framework for associating data, which is associated with an application, with a command object that is arranged to operate on the data. The framework includes a data handler mechanism that interfaces with the application, and a data retriever mechanism that communicates with the data handler to obtain data and to pass the data to the data handler mechanism. The framework also includes a mapping mechanism which obtains the command object based substantially on the data. The mapping mechanism is separate from the data handler mechanism.

A framework that obtains a command object based on data, rather than based on a user selection or an application that will use the command object, effectively enables the application to be “blind” to the process of associating data with an appropriate command object (Specification, on page 7, at lines 16-23). Hence, command object may remain separate from applications. By maintaining command objects independently, data types and command types may be readily modified, created, and deleted (Specification, on page 7, at lines 25-28). Additionally, command objects may be used by multiple applications. Likewise, the separation of the mapping mechanism from the data handler mechanism enables the mapping mechanism, which is not application-specific, to be used with substantially any number of data handler mechanisms, which are essentially application-specific. Hence, a single mapping mechanism may be used with different applications. As such, the efficiency with which command objects and mapping mechanisms may be implemented and used is increased.

The Examiner has asserted that Gosling et al. in view of Skeen et al. teaches the framework required by claim 1. The Examiner has acknowledged that Gosling et al. does not teach of a data handler mechanism which is in communication with an application, a data retriever mechanism, and a mapping mechanism. However, the Examiner has stated that Skeen et al. teaches of such a data handler mechanism. The Applicants respectfully submit that contrary to the Examiner’s statements, Skeen et al. does not teach of a data handler mechanism

which is in communication with an application, a data retriever mechanism, and a mapping mechanism. The Examiner has argued that a communication component as taught by Skeen et al. is equivalent to a data handler mechanism, and that a subject mapper as taught by Skeen et al. is equivalent to a mapping mechanism. It is respectfully submitted that Skeen et al. teaches that a subject mapper is part of and not separate from a communication component (e.g., Figure 14 of Skeen et al. and associated text). A subject mapper that is an integral component of a communication component is not equivalent to a mapping mechanism that is in communication with but separate from a data handler mechanism. Maintaining a data handler mechanism separately from a mapping mechanism enables instances of a data handler to be created substantially independently from the mapping mechanism. Further, the mapping mechanism of claim 1 is not required to be directly in communication with a data retriever mechanism, as is required by Skeen et al. Accordingly, claim 1 is believed to be allowable for at least this reason.

Further, Skeen et al. specifically teaches that a subject mapper is used to determine the network address for services which provide information on various subjects and to invoke appropriate service discipline routines to establish communications with those services (Skeen et al., column 18, lines 60-64). The Examiner has argued that a service discipline routine is equivalent to a command object. A command object, as required by claim 1, is arranged to operate on data. A service discipline routine, on the other hand, examines service records (Skeen et al., column 19, lines 62-65) and is arranged to establish communications with services (Skeen et al., column 18, lines 60-64). It is respectfully submitted that a routine that is arranged to establish communications with a service identified using service records does not teach or reasonably suggest a command object that is arranged to operate on data. Hence, the mapping mechanism of claim 1 is not equivalent to a subject mapper of Skeen et al, and claim 1 is believed to be allowable over the art of record for at least this additional reason.

Claims 2-8, 21, 22, 26, and 27 each depend either directly or indirectly from independent claim 1, and are, therefore, each believed to be allowable over the art of record for at least the reasons set forth with respect to claim 1. Each of these dependent claims recites additional limitations which, when considered in view of independent claim 1, further distinguish the claimed invention over the art of record.

Independent claim 9 recites a method for associating data with a command object in response to a request from an application. The method includes accessing data through an

interface, accessing a mapping mechanism that is accessed by the interface and locates a command object, and obtaining the appropriate command object for the data. The interface binds the command object to the data, then returns the command object to the application. Both the interface and the mapping mechanism are independent from the application, *e.g.*, the interface and the mapping mechanism are not a part of the application. Though independent from the application, the interface is in communication with the application.

An interface which is separate from an application and accesses data, in addition to accessing a mapping mechanism to locate a suitable command object for the data, allows the application to be indirectly associated with command objects. Maintaining command objects independently from applications enables command objects, as well as data types, to be modified, created, and deleted without affecting the application (Specification, on page 7, at lines 15-18). Maintaining the mapping mechanism separately from the interface such that the mapping mechanism may be accessed by the interface but is not a component of the application further enables command objects to be created independently from the interface.

In his rejection of claim 9, the Examiner has effectively stated that an interface for accessing data is a communication component as shown in Figure 14 of Skeen et al. The Examiner has further appeared to state that the subject mapper as shown in Figure 14 of Skeen et al. is equivalent to the mapping mechanism of claim 9. It is respectfully submitted that the mapping mechanism of claim 9 is accessed by an interface that is in communication with an application. Skeen et al. teaches that a subject mapper is part of a communications component (Skeen et al., column 9, lines 34-40).

Further, claim 9 also requires that a mapping mechanism obtains a command object and passes the obtained command object to the interface. The subject mapper of Skeen et al. is not accessed by the communications component since the subject mapper is part of the communications component. Further, the subject mapper does not pass anything to the communications component or module.

In addition, none of the art of record teaches or reasonably suggests returning a command object to an application through an interface or otherwise. The Examiner has stated that he believes that the command object of claim 9 is equivalent to a service discipline as disclosed by Skeen et al. It is respectfully submitted that, for purposes of illustration, even if a service

discipline is equivalent to a command object (which the Applicants do not believe to be the case), a service discipline is not returned to an application, through an interface or otherwise. Specifically, Skeen et al. teaches only of sending items of information pertaining to a requested subject to a service discipline (Skeen et al., column 20, lines 13-19). Such information is not passed to an application and, further, a service discipline is not returned to an application. Accordingly, claim 9 is believed to be allowable over the art of record for at least these reasons.

Claims 10-15 each depend either directly or indirectly from independent claim 9, and are, therefore, each believed to be allowable over the art of record for at least the reasons set forth with respect to claim 9. Each of these dependent claims recites additional limitations which, when considered in view of independent claim 9, further distinguish the claimed invention over the art of record.

Independent claim 16 recites a computer program product which performs the steps of claim 9, and is therefore believed to be allowable over the art of record for at least the reasons set forth above with respect to claim 9. As claims 17-20 each depend from claim 16, claims 17-20 are each also believed to be allowable for at least these reasons as well.

Independent claim 23 requires that a computer-implemented framework for associating data with a command object includes a data handler mechanism which is arranged to interface with a plurality of applications. The framework also includes a data retriever mechanism which communicates with the data handler mechanism, and a mapping mechanism that is associated with the plurality of applications and is substantially separate from the data handler mechanism. The mapping mechanism is arranged to obtain the command object without directly involving a selected application.

In his rejection of claim 23, the Examiner has argued that Skeen et al. teaches of a data handler mechanism that interfaces with a plurality of applications. While the Applicants agree that Skeen et al. teaches of more than one application, Skeen also teaches that each application has its own communications interfaces (Skeen et al., column 7, lines 16-60). As Skeen et al. teaches that each application has a separate communications interface, it is respectfully submitted that Skeen et al. does not teach or reasonably suggest a single communications interface which interfaces with a plurality of applications. Hence, claim 23 and its dependents, *i.e.*, claims 24 and 25, are each believed to be allowable over the art of record for at least this

reason.

Further, claim 23 requires that a mapping mechanism is in communication with the data handler mechanism, and is associated with a plurality of applications. As discussed above with respect to claim 1, Skeen et al. does not teach of a mapping mechanism which is in communication with a data handler mechanism. Skeen et al. also does not teach of a mapping mechanism that is associated with a plurality of applications. Instead, Skeen et al. teaches of separate communications interface modules, which may include a subject mapper, and are each associated with a single application. As claim 23 specifically requires that a mapping mechanism is associated with a plurality of applications, claim 23 and its dependents are believed to be allowable for at least this reason as well.

In view of the above, Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

If any fees are due in connection with the filing of this amendment, the Commissioner is authorized to charge such fees to Deposit Account 50-0388 (Order No. SUN1P123). A duplicate copy of the transmittal is enclosed for this purpose.

Respectfully submitted,  
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